

Claims

1. A device for processing filter tow material for the production of filters for rod-shaped smoking articles, for example cigarettes, said device comprising filter tow delivery means (7) for supplying at least two filter tow strips (4, 6), at least two tow guideways (2, 3), wherein one filter tow strip (4, 6) is guided in each tow guideway (2, 3), further comprising processing apparatuses (24, 44) for processing the filter tow strips (4, 6), characterized in that each tow guideway (2, 3) is assigned a separate processing apparatus (26, 28, 30, 49; 27, 29, 31, 50), which can be controlled separately.
2. The device according to claim 1, characterized in that the filter tow delivery means (7) supply a different filter tow material to each tow guideway (2, 3).
3. The device according to claim 1 or 2, characterized in that each processing apparatus comprises means (26, 28, 30, 49; 27, 29, 31, 50) for flattening, drawing, and/or treating the filter tow material.

4. The device according to claim 3, characterized in that each tow guideway (2; 3) is assigned means (26, 28, 30, 49; 27, 29, 31, 50) for flattening, drawing and/or treating the filter tow material and that the means for flattening, the means for drawing, and/or the means for treating respectively form a single unit in which they are arranged side-by-side and transverse to the direction of the tow guideways (2, 3).

5. The device according to claim 4, characterized in that each means for flattening and/or drawing is provided with a roller pair (28, 30; 29, 31) that is positioned on the same side and is driven by associated drive means.

6. The device according to claim 5, characterized in that the roller pairs (28, 29, 30, 31) for the flattening and/or drawing means, which form a single unit, are positioned coaxial and side-by-side.

7. The device according to claim 6, characterized in that the first roller (29a) of the outer roller pair is positioned on a first shaft (34) and the

first roller (28a) of the inner roller pair is positioned on a first tubular shaft (36) through which the first shaft (34) extends.

8. The device according to claims 6 and 7, characterized in that the second roller of the outer roller pair is positioned on a second shaft and that the second roller of the inner roller pair is positioned on a second tubular shaft through which the second shaft extends.

9. The device according to at least one of the claims 3 to 8, characterized in that the means (44) for treating the filter tow material is a spray box arrangement (46) that extends at an angle, preferably in transverse direction across the tow guideways, wherein this spray box arrangement is provided with discharge openings (49, 50) in the wall (48), facing the tow guideways (2, 3), which discharge openings are assigned to the tow guideways (2, 3) for dispensing the treatment fluid onto the filter tow material (4, 6), and wherein at the locations between the tow guideways (2, 3) respectively one first separating wall is arranged within the spray box arrangement (46) and

respectively one second separating wall (56) on the wall (48) facing the tow guideways (2, 3).

10. The device according to claim 9, characterized in that the cross section for each discharge openings (49, 50) can be changed separately, relative to the tow guideways (2, 3), with the aid of movable metering plates (53, 54).

11. The device according to claim 9 or 10, characterized in that the spray box arrangement (46) can be operated under pressure.

12. The device according to at least one of the claims 9 to 11, characterized in that the spray box arrangement (46) comprises at least one rotating brush, operated by a drive, which dispenses the treatment fluid through the discharge openings (49, 50).

13. The device according to at least one of the preceding claims, comprising a shaping device (62, 63) for reshaping two filter tow strips (4, 6) into two round filter-tow rods (64, 66), characterized in that two conical intake fingers

(68, 69) which are bent twice are provided downstream of the shaping device (62, 63) for reducing the spacing between the filter tow strips (64, 66), wherein respectively one filter tow strip (64, 66) is guided through one finger.

14. The device according to claim 13, characterized in that the intake fingers (68, 69) are attached to a joint holder (70), suspended from a parallelogram frame (72, 74), which can essentially be pivoted in the direction of the filter tow rods (64, 66).

15. The device according to at least one of the preceding claims, said device comprising a shaping device (62, 63) for reshaping the filter tow strips (4, 6) into round filter tow rods (64, 66), characterized in that deflection means are provided downstream of the shaping device (62, 63) and are preferably provided with at least one deflection roller for deflecting the round filter rods.

16. The device according to at least one of the preceding claims,

characterized in that a separate removal device is provided at the end of each tow guideway, wherein this removal device preferably comprises a pusher drum or a transfer spider.

17. The machine for producing rod-shaped smoking articles, comprising at least one device according to at least one of the preceding claims, an apparatus for wrapping a material around the filter tow strips, and an adhesive applicator for gluing together the wrapping material, characterized in that the adhesive applicator comprises first means for applying slow-curing adhesive, in particular cold glue, and second means for applying fast-curing adhesive, in particular hot-melt glue.